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Edited by WILLIAM HUNTING, F.R.C.V.S.

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CANCER RESEARCH.

The last reports by Dr. Bashford of the work done by the Imperial Research Fund show that the subject is one of difficulty and that a great deal of preliminary investigation must be undertaken to clear up errors of fact and inference before useful conclusions can be arrived at. Meanwhile the work goes on and contributions arrive from every part of the world. Dr. Bashford has more than once acknowledged the assistance received from the veterinary profession, and his last report contains a section in which veterinary observation plays so large a part that we have reprinted it in full (commencing on page 163).

PROFESSIONAL BROTHERHOOD.

On page 165 will be found an article from *The British Medical Journal* which, though written for doctors, will be interesting and instructive to veterinarians. Every word of it is equally applicable to members of both professions, and, doubtless, we shall all agree that it is much required by most of our neighbours. The difficulty is to acknowledge its application to ourselves—without this its good effects will be small.

THE "NATIONAL" PICTURES.

The larger group which we reproduced in our issue of Aug. 19th, carried the name of the artist on it, and so any readers desiring copies will know how to obtain them. The smaller pictures, which appeared last week and the week before were taken by Miss A. Cust and Mr. H. J. Dawes to whom our best thanks are given for being allowed to reproduce them.

THE INTERNATIONAL VETERINARY CONGRESS.

The opening ceremony takes place on Sunday afternoon at Budapest, but the Sections commence work on Monday and continue until Sept. 8th when the Congress finishes with a banquet. From Great Britain not many members will represent our profession. We believe that Professors Mettam and M'Fadyean, Messrs. Stockman, Malcolm, Cope, Hobday and Woods all go as delegates. The distance is certainly sufficient excuse for private practitioners being few. Germany and Austria are close at hand and send respectively 186 and 109 members.

ABSTRACTS FROM FOREIGN JOURNALS.

VACCINE PRODUCTION. THE RABBIT AS A PRODUCER, PURIFIER AND STANDARDIZER OF VACCINE.

M. C. Guèrin, a veterinary surgeon and the Chief of the Laboratory in the Pasteur Institute, Lille, has carried out, chiely alone and partly in collaboration with Professor Calmette, some very intcresting researches on Vaccine, and has brought to light the following important facts:

1. The rabbit is very susceptible to vaccinal virus, especially when the inoculations are made by friction on the freshly shaved skin.
2. Passages through the rabbit regenerates the virulence of a weakened vaccine.
3. Inoculation into the peritoneum of this animal, prepared by an injection of sterilised bouillon, enables one to collect, after several hours, in the peritoneal cavity, an absolutely purified vaccine.
4. The testing of vaccines of bovine origin in the rabbit enables one to select those viruses that seem to be the most active.
5. Inoculation of a suitably standardized dilution of various vaccine pulps into the rabbit, enables one to determine, according to the importance of the eruption obtained, the richness of virulent elements in these pulps.
6. The rabbit may, equally with the heifer, be used as a vaccine producing animal. *Rec. de Méd. Vét.* 30 juillet 1905.

EPIZOOTIC OF INFECTIOUS EPIDIDYMITIS OF THE HORSE. By MM. VALLÉE, of Alfort, LESUEUR and LAVERGNE of Hâvre.

The authors observed an outbreak of this disease in an important stud.

Out of 34 entire horses, 8 of them, one after the other, showed external signs of orchitis with extremely serious general phenomena. From the very first all of the animals had temperatures ranging from 40 to 41·5.

The testicular lesions, which were mostly unilateral, were manifested by enormous swelling of the scrotum and sheath. After several days the initial swelling began to abate, the testicle and its envelopes forming one very painful mass; but examination gave only an imperfect knowledge of its constitution. The general state began to rapidly improve whereas the local signs remained stationary, preventing the animals from working. Castration, which was carried out on six of the animals appeared to be the only remedy to remove the lesion. Mallein was previously used to establish the absence of glanders.

A median section through the removed organs and their annexes showed the essestial lesion. The epididymis was more or less profoundly affected; its canals sometimes contained very homogenous, greenish yellow creamy pus; in other cases there were no longer traces of the primary structure of these canals left, but a voluminous slough occupied the place of the epididymis. The testicle was generally free from disease and in only two of the cases were the seminal glands affected; one of these very slightly and the other severely, the testicle of this latter containing a commencing slough of the size of a child's fist. The vaginal sheath was constantly affected and the seat of more or less marked exudative alterations. There was always a predominence of the lesions of the epididymis over those of the other testicular appendages.

The existence of such serious lesions of this organ very well explains the general disturbance at the commencement of the disease. Castration of the affected promptly and completely assured their recovery.

In all the cases operated upon, we were able to detect in the centre of the lesions of the epididymis a very small bacillus which gave us pure cultures on various media. The study of this micro-organism, which totally differs from all the other classified microbian types, and which appears to be the specific agent of the disease will be published later on.—*Rec. de Méd. Vét.*, 30 Juillet 1905. H.G.

TENTATIVE EXPERIMENTS IN SERO-THERAPY AND SERO-VACCINATION AGAINST STRANGLES IN THE HORSE. — By MM. DASSONVILLE and F. DE WISSOCQ.

Since 1895 Lignières has proved the complete identity of the streptococcus of strangles, discovered by Schütz with the microbe also discovered by Schütz in pneumonia; he has pointed out the gravity of those lesions which follow the intervention of this streptococcus in throat infections, pneumonia, pleurisy, etc., whether as a primary infection, or indirectly, following upon an infection by a Pasteurella. Following on this work of Lignières we have systematically made a study of every case of strangles, pneumonia, pleurisy, that we have been able to get hold of. *Without a single exception* we have always found the streptococcus of strangles in the diseased tissues, whether in a pure culture or in a mixed infection.

Without entering on the *rôle* of the different microbes with which the streptococcus may be associated, we may say that in the immense majority of cases our efforts must be directed against this streptococcus if we wish to prevent the development of mortal lesions.

By subcutaneous inoculation with the strangles streptococcus from the horse we have produced in the rabbit pleurisy, pericarditis, pneumonia, presenting all the characters of those affections in the horse. This manifestly establishes the selective power of the microbe on the organs of the thoracic cavity.

Our experiences in immunisation furnish another very cogent argument. If, after injecting progressively increasing doses of streptococcus from a strangles abscess to a horse, which will enable him to resist mortal doses of this microbe, we afterwards inject the streptococcus taken from the thoracic organs in doses several times mortal, the animal resists these injections. And the inverse proceeding has exactly the same result: the animal immunised from the thoracic organs resists doses of virus several times mortal, from strangles abscesses. This, in our eyes, is a very important *a posteriori* confirmation of the identity of the two microbes; and as a result, if we can protect the organism against this streptococcus, we shall prevent not only the usual symptoms of a benign attack of strangles, but also those too frequent and serious affections of the chest due to the same cause.

Before commencing to experiment with serum-therapy it was necessary to know whether a first attack protected against all forms of the disease. It has long been known that strangles and pneumonia are rare amongst old horses, and in the Army when they find an exceptional case of pneumonia or pleurisy it is most frequently in horses of 10 years or upwards which have had strangles five or six years previously. Given the accepted notions on the phenomena of immunity, we may suppose that these animals were protected by the earlier attack but that in course of time the immunity had partly disappeared, leaving them susceptible to infection by hyper-virulent streptococci.

Unable to seek the solution of this question in clinical investigation—very lengthy to carry out and always difficult to render accurate—we turned to experimental methods, inducing the malady by means of injections of cultures of the streptococcus of a known virulence.

Successive inoculations, whether subcutaneous or intravenous, showed us that each injection increased the resistance of the animal to the next injection. These experimente were carried out on ten horses. The temperature chart of one of these, taken at hazard, shows that the injection of increasing doses produced diminishing reactions.

2nd inoculation	2 c.c.	40·2. C.
4th	7	39·9.
6th	15	39·75.
11th	45	39·75.
25th	100	39·0.

In the course of these experiments the horses presented symptoms of all the usual complications of strangles and pneumonia, and the severity of the symptoms was always proportionate to the doses employed, and inversely to the degree of immunity conferred by the preceding infections. All, without exception, exhibited at the outset enormous strangles abscesses; at later stages abscesses formed only exceptionally, and after very heavy doses of culture.

Our next step was to try if the serum of immunised animals was of value either in the treatment of strangles lesions, or as a prophylactic. Here we were met by two considerations. If the attack was of a benign character, such as an angina with abundant discharges yet which cleared up in a

few days, how could we determine what part the serum has played in the recovery? On the other hand, with severe chest symptoms where a fatal issue might be expected we could scarcely hope to do good, however active a serum we might use. In fact these fatal chest cases show on autopsy very frequently, islets of mortifying tissue sometimes of considerable extent containing considerable quantities of streptococci, usually associated with organisms of putrid fermentations. Is it likely that a serum, however active, administered when such conditions exist, can lead to recovery?

It could only be by a long series of statistics, carried over a number of animals, necessarily by different persons and under various conditions, that we could hope to arrive at the possible curative activity of an antigourmous serum. Owing to these and other difficulties we had decided to give up this line of research for the time, when unforseen circumstances enabled us to ascertain that this serum possessed appreciable curative properties.

As a result of the close attention that we had necessarily given, we were able to show that strangles is always accompanied at its onset by thermic symptoms, and that long before the appearance of the recognised symptoms. These thermic symptoms disappear under the action of the serum, and this indicates a curative action about which we hope to have more to say later. But taking a point of view which we considered more important, we have preferred to endeavour to find if our serum was sufficiently active to confer on young animals a passive immunity, if only temporary, during which we might *without danger* practise a preventive vaccination.

M. Bixio, president of the Administrative Council of the Carriage Company of Paris, with very great consideration, placed at our disposal for experiment 20 of their young horses quite recently landed from Hungary. These 20 were selected by MM. Blanc and Drouin, V.S., director and sub-director of their horse department, from those showing no *apparent* symptom of strangles. They were placed together in a special stable and left entirely at our disposal without being put to work at all. We may say at once that out of these 20 horses, showing no *apparent* symptoms, on the first reacting six had a temperature of over 38°.

In the course of our experiments we had occasion to take the temperature of another lot of 52, also newly arrived; we found that 14 of them had a temperature over 38°.

The 20 horses were divided into five groups of four, in the order of their numbers in the Company, that is, without any selection on our part, and were injected on the 9th February with serum in quantities of 5, 10, 15, 20, 30 c.c. respectively. The serum was taken on January 19th from the horse Etendard, which had received at various times, and mainly intravenously, a total of about 600 c.c. of extremely virulent culture.

Immediately after injection the temperature of all horses was taken, and throughout the experiment this was repeated morning and evening, at the same hours and under similar conditions each day.

A table of these readings between 9th and 13th February shows a striking contrast between the regularity of those in horses which had received 20 and 30 c.c., and the variations of those in which the smaller doses were used. The horses which received 5 c.c. all went over 38° C.; one to 39·8, another to 39. Of those which had 10 c.c. two reached over 40, another 39·6. Of those which had 15 c.c. three reached 39 and the other went to 40·8. Of those which had 20 c.c. the temperatures were much more regular—37·8 to 38·4 (the latter reached by one horse only). Finally, in those which had 30 c.c. of serum the temperatures were absolutely regular at about 37·6.

Here the question presents itself. To what is to be attributed that irregularity in temperature that one meets so frequently in young horses? It has long since been noticed that in young horses collected together great oscillations of temperature are evidenced; but so far as we know no one has attempted to connect a cause. Can we throw any light on this?

First of all there is this coincidence, that this irregularity in temperature in young horses is followed in some weeks or some months by visible symptoms of strangles. Now by the time these symptoms are noticeable the disease is well established, the resistance of the organism is in a great measure overcome by the invading streptococcus, but in the earlier days of the infection troubles have necessarily been produced which have been imperceptible to us, but may well have produced a febrile state that the thermometer would indicate. If this were the case, one would be inclined to reason that the larger doses of serum that we had used had prevented development of the streptococci.

Following this line, we took seven of the horses which had received only the smaller doses—5 to 15 c.c. and which had shown curves of considerable irregularity. Three of these (*a*) presented absolutely no sign of strangles up to Feb. 13. Three others (*b*) had cough, with discharge between Feb. 9th and 13th. The seventh (*c*) also coughed, and appeared ill, and was treated differently.

The first three (*a*) received two injections of 20 c.c. at four days intervals (after the first 10 or 15 c.c.) The temperature returned to normal (37·38) and they showed no external symptoms.

The (*b*) group, one had 35 c.c., another 55 c.c., and the cough and discharge disappeared, temperature became normal, with no sign of glands nor abscesses. The other had only 20 c.c. on 13th (after 5 c.c. on February 9th); temperature fell to 37·7 on 17th, then rose to 39·2, and did not get below 38 till 28th. Cough persisted. Recovery was more rapid than in untreated cases; and without abscesses.

The 7th horse (*c*) had a temperature of 38·5 on first injection (5 c.c. on February 9th) and received 20 c.c. on February 13th. From 11th to 15th temperature was normal (not over 37·5) he was feeding well, was slightly dull, hung back on his halter, a slight cough was noticed, but there was nothing to definitely indicate the disease. On

February 16th, without warning, the temperature went up to 40. Two days later a very large swelling appeared on the left quarter. He had then 20 c.c. of serum, followed two days later by "massive" injections. The œdema extended rapidly—under the belly, to the four limbs, and the face. On the 20th we had a characteristic case of anasarca, jnst eleven days after the indications of the temperature.

As we could not possibly know whether this anasarca resulted from S. pyogenes or S. gourmeux, we do not claim more than a relative success, we are content to point out that certain lowerings in the temperature curve are not without relation to the injections of serum; and that the serum was taken from Etendard at a time when he was incomparably less immunised than at present; yet we saw these extensive lesions, with asphyxia threatening, disappear without the use of any other medicament than the serum and without leaving the least blemish.

(*To be continued*)

TWO CASES OF GLANDERS.

By E. W. Goodall, M.D. Lond.,
Medical Superintendent, Eastern Fever Hospital, Homerton, N.E.

Case 1.—A man, aged 55 years, was admitted into the Eastern Fever Hospital on October 28th, 1903. He was a printer by occupation. The history of his illness as given by his wife was that he had been seized with shivering and pains in the limbs on October 9th. On the 11th he was worse and had to stay in bed, having febrile symptoms. As he did not improve under medical treatment at home he was taken on the 20th to the out-patient department of a general hospital whence he was sent to the Eastern Hospital as a case of typhoid fever.

On admission the patient was found to be very ill. He was in a semi-comatose state with muttering delirium. The temperature was 102·4° F., the pulse was 112, and the respirations were 48. On the skin were to be seen a number of small superficial pustules; they were most abundant on the chest, the outer side of the right leg, and on the right forearm. There were a few on the left cheek, the back, the outer side of the left thigh, and the left upper arm. Besides these pustules there were several swellings of varying size (from one to three inches in diameter) in different places; there was one on the right frontal eminence; there were two on the right forearm, two on the left forearm, one on the right leg, and one on the left leg. The largest swellings fluctuated, the smaller ones did not, but felt nodular. These were freely movable; some appeared to be in the subcutaneous tissue, others were distinctly in muscles. The largest swelling was that on the right leg. None of the swellings were connected with bone. The tongue was covered with moist white fur. The fauces were normal; there was no discharge from the nose. The urine contained a cloud of albumin. The heart was enlarged. The lungs were slightly emphysematous; there was a friction sound at the right base in the axilla and crepitations and rhonchi were audible over the whole of each lower lobe. On the morning of October 30th a syringe was put into the swelling on the right leg and some dark brownish fluid, like pus and altered blood, was drawn off. This was examined for organisms and a bacillus resembling that of glanders was at once detected.

The largest swellings were then incised and drained, the same dark, brownish, grumous fluid escaping from each. The patient, however, sank and died on the evening of October 31st. During the time that he was in the hospital the urine contained a cloud of albumin, the temperature varied from 102° to 104·6°, the respirations from 44 to 52, and the pulse from 94 to 124. There was no glandular enlargement. Two or three fresh nodules appeared before death.

Necropsy.—A post-mortem examination was made by Dr. J. H. Whitaker on November 1st. The pustules, nodules, and larger swellings were found to be as described above, but it was ascertained that the nodules and swellings were nearly all of them in muscles. There was recent pleurisy at the base of the left lung and old adhesions over the right lung, especially the lower lobe. The heart was enlarged, the enlargement being due to the increase in thickness of the wall of the left ventricle. The aorta was slightly atheromatous. The kidneys were moderately granular. The intestines, the spleen, the brain, and other organs appeared normal. A microscopic examination of the kidneys made by Mr. Dunstan Brewer showed chronic interstitial nephritis. A further examination of the organism observed in the first instance was kindly made by Dr. G. E. Cartwright Wood and Dr. F. C. Lewis. The bacillus was shown to be the bacillus mallei, both by its mode of growth on media and its physiological action. A streptococcus was also isolated. The bacillus was not a very virulent one. Mr. Brewer demonstrated the bacillus in the skin lesions by microscopic sections.

Case 2.—A man, aged 33 years, was admitted on February 24th, 1905. He was employed in a large stable belonging to a firm of contractors in the East End and was taken ill somewhat suddenly with "pains all over him" ten days before admission. He stated that he had been looking after a horse which was ill with influenza. He was sent to a general hospital as a case of "blood poisoning" and then to the Eastern Hospital as one of typhoid fever.

On admission the patient had a temperature of 101·4° the pulse was 102, and the respirations were 28. In one of the muscles of the extensor surface of the left forearm was a nodular swelling; this did not fluctuate, nor was there any inflammation of the skin over it. The left knee-joint was much swollen, very painful, and distended with fluid; the skin over it was not inflamed. The patient said that the lump in the arm had been present since February 18th and the knee-joint had been affected since the 16th. The heart was slightly enlarged and there was a faint apical systolic murmur. The lungs were normal except for a few râles at the bases behind. The abdomen was natural. There were no definite signs of typhoid fever. The patient's teeth were much decayed and very foul. There were sordes on the gums and lips. The fauces appeared to be inflamed but no exudation could be seen. The tongue was fairly clean. The bowels were confined. On the next day some purulent material was obtained from the swelling in the arm and some quite clear fluid from the knee-joint. These fluids did not show any organisms on being examined. Cultivations on agar were made from the fluids by Mr. Brewer; that from the swelling in the arm gave no growth; but on the second day that from the knee-joint gave a growth of what appeared to be bacillus mallei. A day or two later Dr. Lewis drew some more fluid from the knee-joint, from which he and Dr. Wood obtained the bacillus mallei, giving the characteristic growths and reaction.

There is little to add about the patient's condition during the next few days, but on March 1st he became delirious at night and had delusions. Every night he perspired profusely. On the 2nd it was observed that the swelling in the left forearm could no longer be felt;

it had not been incised. The fluid in the knee-joint had now become turbid. The right elbow was very painful and slightly red and swollen. From that day the patient became gradually worse; he became more prostrate, with subsaltus tendinum and twitching of the facial muscles. The delirium was more continuous. On the 8th the left cheek became swollen and a pustule appeared on the nose. On the 9th the right ankle-joint and great toe became swollen and red and a muco-purulent discharge issued from the left nostril. During the 10th and 11th many small nodules and pustules came out on the skin of the face, the trunk, and the limbs; on the face there were about a dozen. On the 11th some of the pustules were beginning to scab. Small lumps could be felt in some of the muscles. The patient became quite comatose and died at 4.30 p.m. on the 11th. During the fortnight or so that he was in hospital there was continuous pyrexia, the temperature ranging from 99° to 105°. There was also albuminuria all through this period. During the last day the patient vomited.

Necropsy.—A post-mortem examination was made on the evening of March 11th by Dr. W. M. Robson. The body was much wasted. On the face, trunk, arms, and legs were pustules, and small ulcers. Those on the face, which were the oldest, were crateriform. The swelling on the left cheek was found to be due to an abscess amongst the muscles. The right elbow contained a small quantity of pus and lymph; the left knee contained a quantity of pus and lymph but in neither joint was the cartilage eroded. Along the tendons of the peronei as they pass under the right ankle and along the dorsal tendon of the right great toe was in each case a collection of pus of a brownish colour. On cutting into the muscles of the limbs, upper and lower, many small abscesses containing thick greyish-brown pus were discovered. Many of them could be felt through the skin. There was a pustule on the soft palate. In the larynx below the right cord was an area, of irregular shape, about three-quarters of an inch square, of mucous membrane which had ulcerated. Part of the ulcerated surface had upon it some slough of yellowish colour. This ulcer was superficial. The right vocal cord was distinctly inflamed. One inch below the cord, below and in front of the ulcer was a T-shaped patch of small yellow masses of the size of millet seeds, in places confluent; a few of these extended towards the left cord. There was no pleurisy but there were numerous subpleural petechiæ. At the base of the left lung there was a nodule of the size of a pigeon's egg resembling a recent infarct. All through both lungs were small nodules of about the size of tubercles. There were signs of old tuberculosis at each apex. The heart was large and showed signs of old endocarditis of the mitral valve, the edge being thickened and presenting two or three bead-shaped projections. There were a few hæmorrhages in the epicardium. The other organs presented appearances hardly differing from the normal. In this case, also, Mr. Brewer demonstrated the presence of the glanders bacillus in the lesions of the skin and palate.

Remarks.—Perhaps the most interesting point about these cases is the diagnosis. Each of them was sent to the hospital as a case of typoid fever. In neither instance do I think that that diagnosis was justifiable. Case 1 was sent in as typhoid fever with periostitis. The man was acutely ill and even if the abscesses had been periosteal the diseases was hardly likely to have been typhoid fever, because periostitis rarely occurs in the acute stage of that disease. Intramuscular abscesses also are very rare in typhoid fever. It was the presence of such abscesses and of the pustules that led me to suspect glanders and make a bacteriological examination. Case 2 was not at all like glanders when admitted to hospital but simulated acute rheumatism very closely. Here, again, the diagnosis of typhoid fever should not have been made, arthritis being very rare in that disease. There was also one intramuscular nodule which proved to be an abscess. The man's occupation suggested glanders and hence a bacteriological examination was made. Towards the termination of the case the more characteristic symptoms of glanders appeared. This man was seen by two medical men before admission and I was surprised that his occupation had not reminded them of the real nature of the illness. The practitioner who first attended the patient sent him to the general hospital with a letter stating that the case appeared to be one of some sort of blood poisoning and mentioning the patient's occupation and the fact of his attending sick horses. But the medical officer in the out-patient department sent him on to the fever hospital as a case of typhoid fever. Both cases illustrate the value of bacteriology as an aid to diagnosis.

Curiously enough, in neither case was the exact source discovered whence the patients contracted the disease, though both were investigated by the officials of the London County Council, to whom they were notified. There were 24 horses in the stable in which the patient in Case 2 was employed. Though some of these animals were ill not one presented signs of glanders or reacted to mallein. There had been a case of equine glanders in the stables in March, 1904. Lastly, in Case 2 ulceration of the larynx was found, a lesion which, so far as I can ascertain from the literature on the subject I have at hand, is very rare. The lesion was quite recent and acute and was not apparently connected with the old healed tuberculous lesions found in the lungs.—*The Lancet.*

AGE INCIDENCE OF CANCER.

As is well known, carcinoma appears in the human subject with increasing frequency as life advances. We have adduced evidence to show that the same holds for sarcoma. It was not generally recognised prior to the work of the Imperial Cancer Research Fund that this is a law common to all mammals, both to those with short and those with long lives.

The great frequency of cancer and its peculiar age-incidence give it importance as a public question, for cancer strikes at the individual when his experience and wisdom are of the greatest value to the community.

This peculiar age-distribution has received varying attention in the past, and if its importance has been uniformly recognised by accurate statisticians, it has been greatly neglected by most pathologists. Among biologists, R. Hertwig has alone attempted to explain it.* The neglect to fully appraise the importance of the peculiar age-incidence as a prime factor in determining its relative frequency in different geographical areas, has led in the past to the assumption of the existence of endemic centres of the disease for the human subject. The same neglect completely nullifies the conclusions based on much sparser data advanced by certain pathologists in America, France, and Germany, to prove the endemic occurrence of cancer in animals (see below.)

The higher incidence of cancer in later adult life and in old age corresponds with the decline in reproductive activity, but this correspondence is probably to be explained as a mere coincidence. The occurrence of cancer in castrated and spayed animals at the same ages as in entire animals, shows that neither an abnormal internal secretion in the reproductive organs nor the cessation of a normal one is the cause of cancer.

* *Loc. cit.*

Age-Distribution of cases of Cancer in Domesticated Animals microscopically examined in the laboratory of the Imperial Cancer Research Fund, in which a statement of age was made.

Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Horse (30 cases)	...	. .	...	...	...	...	...	1	1	2	...	...	...	4	2	7	(10 stated to be old)
Cow 46 cases)	...	...	1	...	...	...	...	1	...	...	...	1	...	...	1	...	(42 very old)
Dog (107 cases)	...	...	...	...	2	3	1	4	4	7	2	3	...	4	1	...	(12 stated to be old)
Cat (10 cases)	...	...	...	...	...	...	...	2	1	...	...	...	2	...	1	...	
Mouse (10 cases)	...	10															

The investigations of the Imperial Cancer Research Fund into the occurrence of cancer among the lower animals has shown that in these, as well as in man, cancer occurs with increasing frequency as age advances, and the number of cases recorded in any one species depends entirely on the number of aged animals which come under observation. In connection with experimental work it has been necessary for us to deal with 27,000 mice, among which 11 cases of carcinoma have been found: a very large proportion of these mice were young animals. In the total number of mice malignant new growths were found in the relatively small proportion of 1 in 2,500. Again, whenever aged cows are slaughtered in large numbers, cancer is not infrequently discovered during inspection of the carcases. Mr. A. M. Trotter, M.R.C.V.S., the Chief Veterinary Inspector to the Corporation of Glasgow, has classified the cattle slaughtered for food into two groups, young and old. In the latter group there is a large number of cases of carcinoma. Animals slaughtered for food are killed, on the whole, at the earliest age which yields profit: *e.g.*, 53,482 pigs were slaughtered in Glasgow in 1903. The average age of those was from 6 to 12 months. In the case of some animals a considerable number may be kept to higher ages, *e.g.*, cows may be kept as draught animals. In 1902 a total of 62,935 home cattle of all ages, including 1,668 calves, were slaughtered and 27 carcases were destroyed owing to the discovery of malignant new growths with widely disseminated secondary deposits. All the 27 cases of cancer were found in aged cows imported from Ireland, and not one in the younger oxen, bulls, heifers, and calves. The number of malignant new growths does not include cases in which the disease was local, and gives a proportion of 1 case in 2,400 cattle of all ages. In 1903, 47,362 home cattle of all ages, including 1549 calves, were slaughtered and a total of 131 cases of malignant new growths was found. Of this total as many as 116 were again found in aged cows from Ireland. The dissemination of the disease in the carcase necessitated the destruction of the carcases in 37 instances. In 1903 malignant new growths were present in the high proportion of 2·8 per 1000. So that among the home cattle slaughtered in Glasgow the presence of a relatively small proportion* of aged cows with a very high incidence of cancer has had the effect of raising the incidence of cancer at all ages in the cattle slaughtered above that in man at all ages. Mr. A. M. Trotter has rendered great service to the investigation of cancer by his valuable collaboration, which included the microscopical examination of the growths in question and the forwarding of all doubtful specimens for further investigation in the laboratory of the Imperial Cancer Research Fund. Thus tumours due to actinomycosis, and other infective granulomata have been excluded. These figures indicate the probability that, when the full facts are known, the recorded incidence of cancer at all ages will approximate in cattle and in mice to that at all ages in the human subject. The variations in the frequency with which cancer is recorded even under the favourable circumstances which obtain in highly civilized peoples, are shown in a table. The figures at our disposal with reference to the dog, horse, cat*, and other animals are less numerous, but they are in agreement with those for mice and cattle, and bear out the view that with the examination of a sufficient number of aged animals the number of cases of cancer brought to light will increase in the same way and bring the known incidence at all ages nearer to that recorded for the human subject at all ages.

The figures indicating a great frequency of cancer in cows in Ireland will almost certainly be assumed by many pathologists to prove the existence of an endemic centre of the disease in that country. Such a perpetuation of the statistical fallacies which have been laid bare in dealing with cancer in man must be guarded againsr if any progress is to be made. The necessity for caution in this particular is well exemplified in the statements of Borrell† and Michaelis† on the occurrence of cancer in mice, Loeb† on the occurrence of cancer in cattle in America, and by the significance imputed to the appearance of carcinomata in a number of rats which Hanau kept for many years. In all these instances the age-incidence of cancer has been absolutely ignored. The total number of animals among which the cases occurred has been left out of consideration, and their average age has been similarly neglected. The age-incidence of cancer in mice alone suffices to account for the appearance of the tumours, observed in old female mice kept for breeding purposes

In order to obtain exact ideas of the conditions governing the artificial transmission of cancer in mice, it is necessary to employ animals as free as possible from the risk of the sporadic appearance of malignant new growths, in other words to use only young animals. This precaution has not only been neglected by Borrel and Michaelis, but Haaland introduced the greatest possibility of error into his investigations by selecting aged mice.

The data which have accumulated on the frequency of cancer in animals indicate a liability approaching that of man when age is taken into account. This information is of importance because we have also reason to suppose that the time at which malignant new growths appear in animals stands in direct relation to the absolute duration of life in long and short lived animals

* The actual figures cannot be obtained because the cattle are only numbered for the purpose of levying market dues, and the classification here required is not made.

* It is of interest to note that we have been permitted to painlessly destroy only six cats. They were aged from 8 to 13 years, and on post-mortem examination we found two of them suffering from carcinomata. The owners of the cats had them destroyed for other reasons.

† Borrel, Ann. de l'Institut Pasteur, 1903; Haaland, Ann. de l'Institut Pasteur. 1905; L. Loeb, "Ueber das endemische Vorkommen des Krebses beim Tier," Centralblatt für Bacteriologie, Bd. 37, 1904; Michaelis, Deutsche Medizinische Wochenschrift, 1904.

respectively, so that the ratio of the periods of relative freedom from cancer to the absolute durations of life is the same.

The span of life of the individual is not the same as that of the separate organs and tissues contributing to its maintenance. Some organs and tissues early attain full development and disappear: others are only active during adult life, and others again are active as long as life lasts. The varying age-incidence of cancer in different organs of individuals of the same species presents contrasts similar to those found in different species with long or short lives. Other factors, however, greatly modify the mere influence of time, and we do not perceive in the organs of an individual the sharp distinctions exhibited in the representatives of different species. There are, however, indications of such differences.

Twelve cases of carcinoma have been examined in trout which, from being kept in breeding-ponds, were known to be from 5 to 7 years old. In trout hatcheries we are informed that this fish ceases to breed with regularity after 6 or 7 years.

The following summary of the age-distribution of cancer in domesticated mammals in Germany may be quoted*:—

	Young.	*Adult.*	*Aged.*
Horse	2	45	43
Cattle	4	8	1
Dog	1	107	26
Cat	1	1	

To take only a few instances from human pathology: the chorion has a short life, and chorion-epithelioma appears at an interval after fertilisation which corresponds to its senile stage of proliferation. The mamma and the uterus attain maturity more slowly and are active for a relatively longer time; but carcinoma has its highest incidence when these organs are undergoing involution. The skin remains functional long after middle life, and the age of greatest frequency of squamous-cell carcinoma corresponds. As the "compass" of life determines the general incidence of cancer in a species, so also it helps to determine the occurrence of malignant new growths in different sites in any one animal. The age at which the maximum incidence of cancer occurs in any one species results from the combined action of these factors; but in individuals there may be contributory causes at special sites whereby the final stages of proliferation are attained more early, where, *e.g.*, chronic irritation or injury has led to excessive cell-multiplication. The modifications which time-limitations effect on the characteristic features of cancer, support the conclusion from experimental and cytological observations; and the view that the unbounded growth of cancer follows on the terminal phases of normal cell multiplication, makes the age-incidence of the disease a necessary consequence.

* A. Sticker: "Ueber den Krebs der Tiere," Archiv. für Klinische Chirurgie, Bd. 65, p. 141.

THE DUTIES OF PROFESSIONAL BROTHERHOOD.

We are justly proud of the feeling of professional solidarity that unites practitioners of medicine throughout the world in a commonweal wherein fraternity is not an empty name, but the animating principle which, to use a scholastic term, informs the whole body. We are bound together by what Hamlet calls the consonancy of our studies, and by community of aims and of interests. Of no other profession can it be said with equal truth that it works everywhere by the same methods directed to the same ends. Medical science knows no distinction of race, caste, or creed; whatever is discovered is held to belong by right, not to the individual, but to the community, and is therefore at once promulgated, in a fuller sense than any Papal decree, *urbi et orbi*. Men who in the flesh are strangers know each other as brethren in the spirit, and work together for the furtherance of knowledge. In the sphere of practice, the brotherhood of the profession is not less real. If a practitioner is unjustly accused of any failure, or negligence in the discharge of his professional duties, he may rely with confidence on the active support of his brethren. If a medical man, through no fault of his own fall by the wayside in his journey through life, he may generally count on having helping hands held out to him.

It must, however, be confessed that if the duties of professional brotherhood are thus freely acknowledged in our public relations, the case is not quite the same in our private dealings with each other. The old saying *Invidia medicorum pessima* may be dismissed as a calumny; it is certain, however, that envy, hatred and all uncharitableness, which should be conspicuous by their absence in men who beyond all others are inspired by the spirit of charity to their kind, are too much with us in our relations to each other. To say that this is an outcome of the struggle for existence is an explanation, but not an excuse. The conduct of a medical practitioner towards his professional brethren should be regulated by something higher than the blind forces of the cosmic process.

Professor Osler, whose voice has always been that of a messenger of peace, has a good deal to say on this subject in his farewell address to the medical profession of the United States which appears in the *Journal of the American Medical Association* of August 5th. Speaking, of course, of America, he says that in the larger cities professional jealousies are dying out, but are not yet extinct. He cites with sorrow the testimony of a most intelligent and sympathetic layman, who complained that the spirit of bitter antagonism between medical men made co-operation in the working out of a broad plan for the good of suffering humanity exceedingly difficult. Things are much worse in the smaller towns and in country districts. Only those of us, says Professor Osler, who have been brought up in such surroundings can appreciate how hard it is for practitioners to keep on good terms with each other. The practice of medicine calls equally for the exercise of the heart and the head, and when a man has done his best, to have his motives misunderstood and his conduct of a case harshly criticised, not only by the family, but by a colleague who has been called in, is naturally felt as a grievous hardship. It is scarcely surprising, therefore, if, when the opportunity arises, the old Adam prevails and the maligned one repays the treatment in kind.

Dr. Osler says that, as far as his observation goes, there are three chief causes for the quarrels of doctors. The first is lack of proper friendly intercourse by which alone we can know each other. It is, he urges, the duty of the older man to look on the younger one who settles near him, not as a rival, but as a son. Doubtless the younger man will do just as the old practitioner did when he started; he will get a good many of the latter's cases. Professor Osler advises the older man to realise that this is inevitable, unavoidable, and the way of the world. This is a counsel of perfection, but there is no doubt that if practitioners would talk over in a friendly way the first delicate situation that arose, the difficulties would disappear, and recurrences might be made impossible. The young men should treat the sensibilities of their seniors tenderly, deferring to their judgment, and taking counsel of them. A man who may have been held up to us as an example of all that is pernicious may

prove to be a very good fellow, the victim of petty jealousies, and the mark for the arrows of a rival faction. We heartily agree with Professor Osler that the best way to avoid misunderstandings is to know one's professional neighbours and judge their qualities for ourselves, not through the spectacles of other folks' spite or stupidity. It is one of the greatest advantages of membership of the British Medical Association that it offers so many opportunities of friendly personal intercourse by which the feeling of brotherhood is maintained and strengthened.

The second cause of doctors' quarrels is uncharitableness, which Professor Osler denounces as "the most widespread, the most pernicious of all vices, equal in its disastrous effects to impurity, much more disastrous often than intemperance, because destructive of all mental and moral nobility, as are the others of bodily health." It is peculiarly apt to beset all of us, and is the chief enemy to concord in our ranks. Often it is a thoughtless evil, a sort of tic or trick, an unconscious habit of mind and tongue, which gradually takes possession of us. No sooner is a man's name mentioned than something slighting is said of him, or a story is repeated which is to his disadvantage, or the involuntary plight of a brother is ridiculed, or even his character is traduced.

The third cause of misunderstanding is the wagging tongue of the mischief-making gossip, who is always ready to tell tales and make trouble between practitioners. There is only one safe rule, says Dr. Osler: Never listen to a patient who begins with a story about the carelessness and inefficiency of Dr. Blank. "Shut him or her up with a snap, knowing full well that the same tale may be told of you a few months later. Fully half of the quarrels of physicians are fomented by the tittle-tattle of patients, and the only safeguard is not to listen. Sometimes it is impossible to check the flow of imprecation and slander, and then apply the other rule—perfectly safe; but which may be commended as a good practice—never believe what a patient tells you to the detriment of a brother physician, even though you may think it to be true."

All this is summed up in the golden rule of conduct which is applicable to all difficulties of professional life: Do unto others as you would that they should do unto you. Standing, as the best of us do, ever in need of the charity that thinketh no evil in the interpretation of our motives and in the estimation of our acts, let us not view our neighbours' conduct, however inexcusable it looks, in the deceptive light of what appears to our fallible minds to be justice. Let us try to put ourselves in his place, remembering that *tout comprendre c'est tout pardonner*. In any case let us not use him after his desert, for if this measure is to be meted out to all, which of us shall 'scape whipping?—*B.M.J.*

The Dublin Horse Show.

The following gentlemen acted as Veterinary Referees and Veterinary Surgeons:—

Referees: John R. U. Dewar, Royal (Dick) Veterinary College, Edinburgh; Robert J. Hickes, Market Weighton, R.S.O., Yorks.; Mr. T. D. Lambert and Mr. Charles Allen, Dublin; Mr. James M'Kenny and Mr. R. Freeman, Dublin; Mr. William C. Patrick, Mullingar; Mr. R. T. Huston, Armagh; Mr. James Dawson, Enniskillen; Mr. W. Boyd Gardner, Drogheda; Mr. J. R. Webster, Enniscorthy; Mr. John F. Healy, Midleton; Mr. L. P. Power, Cashel; Mr. E. C. Winter, Limerick.

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
Gt. BRITAIN. Week ended Aug. 26		13	16	..	..	22	43	..	..	2	16	58
Corresponding week in	1904 ..	19	51	..	..	34	54	..	..	1	18	76
	1903 ..	18	24	..	..	47	69	..	..	6	12	298
	1902 ..	11	14	..	..	27	36	..	..	6	26	116
Total for 34 weeks, 1905		648	914	..	..	827	1429	..	..	654	592	2672
Corresponding period in	1904 ..	659	1047	..	..	1030	1827	..	..	1065	970	4521
	1903 ..	535	820	..	..	989	1613	..	..	1176	1095	5598
	1902 ..	465	750	1	120	760	1339	12	11	1117	1262	5455
IRELAND. Week ended Aug. 19		..	..	..	..	..	..	..	..	..	4	58
Corresponding Week in	1904 ..	..	..	..	..	..	..	..	..	..	8	184
	1903 ..	..	..	..	..	..	..	..	..	1	6	213
	1902 ..	..	..	..	..	..	..	..	..	..	8	39
Total for 33 weeks, 1905		2	2	..	..	13	35	..	..	228	38	1117
Corresponding period in	1904 ..	2	2	..	..	8	29	..	..	368	126	2793
	1903 ..	2	3	..	..	1	2	2	..	396	115	2607
	1902 ..	..	..	..	..	6	25	..	..	437	123	2572

Board of Agriculture and Fisheries, August 29, 1905.

Epizootic Lymphangitis, Jan. 2 cases; Feb. 2; Mar. 10: May, 1; June, 7: Week ending July 1st, 1; 8th, 1: Total 24

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Aug. 24, 1905.

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection.

The Advance in Our Knowledge of the Causation and Methods of Prevention of Stock Diseases in South Africa during the last Ten Years.—By Col. D. Bruce, F.R.S. President of the Section of Physiology.*

Stock Diseases in South Africa.

He said that ten years ago, when he first came to South Africa he was led to take an interest in the various great stock diseases which so retarded the progress of South Africa as a stock raising country. He thought, therefore, that a good subject for his address would be a review of the work done in advancing our knowledge, during the last ten years, of the causation and methods of prevention of stock diseases in South Africa. South Africa was particularly rich in diseases affecting domestic animals. Among the most important were :—East Coast fever; ordinary redwater or Texas fever; biliary fever of horses; malignant jaundice of dogs; nagana or tsetse-fly disease; trypanosomiasis of cattle; rinderpest; horse-sickness; catarrhal fever in sheep; heart-water of sheep, goats and cattle. These diseases might be divided into two main divisions : A division, in which the parasite was known; and B division, in which the parasite was unknown :—A. Parasite known.—I. Diseases caused by parasites belonging to the genus piroplasma :—1. East Coast fever (Koch), *P. parvum*; 2. Redwater or Texas fever, *P. Bigeminum* (Theiler); 3. Biliary fever of horses, mules, and donkeys, *P. Equi*; 4. Malignant jaundice of dogs, *P. canis*. II. Diseases caused by parasites belonging to the genus trypanosome :—1. Nagana or tsetse-fly disease, *T. Brucei* (Bradford and Plimmer); 2. Trypanosomiasis of cattle, *T. Theileri* (Bruce). B. Parasite unknown.—I. Rinderpest. II. Horse-sickness; catarrhal fever of sheep; heartwater of sheep, goats, and cattle.

East Coast Fever.

This name was given by Prof. Robert Koch, of Berlin. In the Transvaal the disease was usually called Rhodesian redwater. This term was not a good one, since the disease was not restricted to Rhodesia, nor did it arise there, nor was this a disease similar to the ordinary redwater. Ten years ago East Coast fever was unknown in the Transvaal. The first known outbreak occurred only some three and a half years ago, when it broke out at Koomati and Neilspruit, in the Barberton district, and in the east of the colony. The disease had broken out some time previously in Rhodesia, and the outbreaks in both colonies were due to infection from Portuguese territory. Although so recent, it had already produced an enormous amount of damage among stock, and was probably the most dangerous disease that the people of the Transvaal had to cope with at the present time, and for some years to come. In the annual report of the Transvaal Department of Agrieulture there was a most excellent report by Mr. Stockman, the then principal veterinary surgeon, on the work of the veterinary division for the year 1903-1904. Unfortunately for the Transvaal, Mr. Stockman had accepted the post of Veterinary Adviser to the Board of Agriculture in England, but Mr. Gray, from Rhodesia, was to continue the good work. East Coast fever was first studied by Prof. Koch at Dar-es-Salaam, in German East Africa, and he at first mistook it for ordinary redwater. It seemed to be endemic along a great part of the East Coast of Africa, but restricted to a narrow belt along this coastline. The cattle inhabiting this region had become immune to the disease, but cattle passing through the coast district to the interior, or brought to the coast district from the interior, were apt to take the disease and die. It was by the importation of cattle, therefore, which had passed through the dangerous coast district that the disease was introduced into Rhodesia and into the Transvaal. This disease only attacked cattle, but in them was exceedingly fatal : in every hundred cattle attacked only about five recovered. The duration of the disease after the first symptoms had occurred was about ten days. The cause of the disease was a minute blood parasite called the *Piroplasma parvum* (Theiler). This parasite lived in the interior of the red blood corpusles. As in the case of so many of these blood diseases, the parasite causing it was carried from the sick to the healthy by means of a blood-sucking parasite. In this particular disease the tick which most commonly transferred the poison or living parasite from one animal to another we know as the "brown tick," *Rhipicephalus appendiculatus* These ticks were very hardy, and in the intermediate stages could resist starvation for long periods, so that a larva or nympha or adult tick might remain perched at the end of a blade of grass for some months without finding an opportunity of transferring itself to a suitable animal. On this account it came about that even if all infected cattle were removed from a field the ticks in that field would remain capable of transferring the infection to any healthy cattle which might be allowed into this field for a period of about a year. At the end of about a year or fifteen months, however, the infective ticks were all dead, and clean cattle might be allowed into the field without any risk. A single ox might spread this disease for a distance of some 200 miles, if trekking through the country at the average rate of ten miles a day. For example, an ox was infected by a tick; for 14 days the animal remained apparently well; it had no signs of disease, nor had it any fever. It was capable of doing its ten miles trek a day. At the end of 14 days the temperature began to rise, and the animal to sicken with the disease, but for the next six days the ox was, as a rule, able to do its ordinary day's march. During most of this time the brown ticks had been crawling on to this ox, becoming infected, and dropping off every three or four days. It could readily, therefore, be seen how much mischief a single infected animal could do to a country between the time of its being infected by the tick and its death some 24 days later. As a matter of experience, however, the disease had never been found to make a jump in this way of more than 50 or 60 miles, as, of course, it was very rare that a transport carrier would take his oxen more than that distance during the 20 days. At the present time there were about 500 infected farms in the Transvaal. During last year some 15,000 cattle had died of the disease, and in the affected districts it might be said that there were still some 30,000 cattle alive. When one considered the value of the cattle dead of this disease, which might be said to be about £200,000, it was evident that money spent on the scientific investigation of the causes and prevention of stock diseases was money well spent. He was informed that all the South African Governments were cutting down their Estimates this year, and were inclined to reduce their veterinary staffs and the amounts devoted to research regarding animal diseases. If this was so, it was the maddest sort of economy and the shortest-sighted of policies. During the last three years an immense amount of work had been done in the elucidation of this disease. In 1903 Professor Koch was asked by the South African Colonies to study this disease in order to try to find some method of artificial inoculation or some other means of prevention. The difficulties were great and Professor Koch presented several reports. In his third and fourth reports he recommended that cattle should be immunized by weekly or fortnightly inoculations of blood from recovered animals, extending over a period of five months. Even though this method

* At the meeting of the British Association, Johannesburg, S. Africa, Aug. 29.

of Koch had given the desired result—viz., that it rendered the innoculated cattle immune to the disease, it was evident that the method itself could hardly be made a practicable one on a large scale in the field. At present, therefore, we must look to some other means of preventing the disease and driving it out of the country than preventive inoculation. Much could be done to prevent the spread of this disease by ordinary methods. For example, in the case of Texas fever in Queensland dipping cattle in solutions of arsenic or paraffin, in order to destroy the ticks, had met with very fair success ; but in the case of this disease we could not expect to get as good results as in the case of Redwater. Again, the fencing of farms must also be useful in the same direction. As the ticks did not travel to any extent when they fell among the grass, it was evident that the cattle on a clean farm which was properly fenced would not become infected by this disease, although all the country round about should be infected. This fencing of farms and subdividing the farm itself could not be done at once, as the expense would be prohibitive.

(*To be continued.*)

Royal Vet. Coll. Prizes and Medals.

Coleman Prizes.—Silver medal, L. Danels; bronze medal, W. T. Brookes; certificate of merit, H. S. Ward. *Centenary Prizes.*—Class A, F. M. Reynolds; Class B, H. Tudor Hughes; Class C, A. W. N. Pillers; Class D, L. Danels. *Royal Agricultural Society's Medals.*—Silver medal, L. Danels; bronze medal, W. H. Taylor. *Ralli Prizes in Practical Surgery.*—1st, L. Danels; 2nd, F. W. Chamberlain; 3rd, A. S. Chisholm. *Clinical Prizes.*—Class A.—1st, A. W. Shilston; 2nd, J. C. S. Powell; 3rd. J. Bott; Class B.—1st, D. R. Chatterley; 2nd, H. Tudor Hughes; 3rd, C. M. Barton. Class C.—1st, A. W. N. Pillers; 2nd, A. L. Sheather; 3rd, S. Carless and T. Lishman, æq. Class D.—1st, L. Danels; 2nd, F. W. Chamberlain; 3rd, W. T. Brookes. *Class Prizes.*—Class D.—Veterinary Medicine.—1st, L. Danels; 2nd, E. Belcher; Surgery—1st, F. W. Chamberlain; 2nd, W. A. Broad and L. Danels, æq. Class C.—Pathology—1st, A. W. N. Pillers; 2nd, M. H. Kingcome; Hygiene—1st, A. L. Sheather; 2nd, A. W. N. Pillers; Materia Medica—1st, M. H. Kingcome and A. L. Sheather, æq. ; 2nd, A. W. N. Pillers. Class B.—Anatomy—1st, H. Tudor Hughes; 2nd, E. H. Brogan; Histology—1st, H. Tudor Hughes; 2nd, W. Waters; Physiology—1st, H. Tudor Hughes; 2nd, W. Waters. Class A.—Chemistry and Toxicology—1st, W. H. Andrews; 2nd, F. M. Reynolds; Practical Chemistry—1st, A. W. Shilston; 2nd, F. M. Reynolds. Biology—1st, H. V. Dier; 2nd, G. E. Henson and A. W. Shilston, æq.; Minor Anatomy—1st, G. E. Henson; 2nd, F. M. Reynolds.

Personal.

Dr. and Mrs. Place and their family have just had a very narrow escape and unpleasant experience. Immediately after tiffin one day they were all seized with acute symptoms of irritant poisoning, and within an hour were prostrate with extreme diarrhœa and vomiting; at first a native servant who had been discharged the day before was suspected of having tampered with the food, but the extreme rapidity of the attack pointed to ptomaine poisoning, and fortunately Dr. Place was the least severely attacked, so that by prompt measures the attack was cut short, and latest advices by the mail inform us that all the sufferers are well on the way to recovery. The affected food proved to be a leg of mutton from which the lymphatic glands had not been removed, and which had been—contrary to Indian custom, reserved overnight.

At the Residency, Jaipur, Rajputana, on August 5th, Lieut.-Col. C. Herbert, I.A., the British Resident, in the presence of the leading Europeans and Rajput nobles, decorated Veterinary Assistant Mirza Hidayat Ali Beg with the two South African medals. The recipient of the honours went all through the campaign and was at Bloemfontein, Mafeking, and Nieuwport. Colonel Herbert in an appropriate speech in fluent Urdu emphasised the value of the work done by the Indian veterinary staff in S. Africa as a typical bond of union between India and the rest of the British Empire.

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*,

WAR OFFICE, PALL MALL, Aug. 25.

The undermentioned Gentlemen to be Lieutenants :—L. Danels, vice R. J. Collings, resigned; A. C. Anderson, in succession to Vet.-Maj. J. K. Grainger, retired on retired pay; W. J. Dale, in succession to Lieut.-Col. L. J. Blenkinsop, D.S.O., promoted ; J. R. Hodgkins, in succession to Maj. J. Cooper, F.R.C.V.S., retired on retired pay ; W. T. Brookes, in succession to Capt. W. E. Russell, deceased; W. H. Simpson, in succession to Capt. F. U. Carr, seconded for service under the Colonial Office.

Aug. 29.

Capt. Charles B. M. Harris, F.R.C.V.S., D.S.O., to be Major. Dated 27th August, 1905.

Lieut. Edward C. Orton, from half-pay, to be Lieutenant. Dated 28th Aug.

OBITUARY.

Death during last week removed the last of a notable trio of men. Thomas Duckham preceded his *confrères* into the silence by some years, but only a month has separated the demise of Clare Sewell Read from that of Jacob Wilson. Unlike Wilson and Duckham, Read found a seat in Parliament, and was able to take a personal interest and share in the Parliamentary fights which preceded the final adoption by the British legislature of the principle regarding contagious diseases in animals, now recognised as sound. Of the three men, Sir Jacob Wilson had the greatest power over his fellows. His gifts were such as secured for him the personal favour of men of all classes and shades of opinion. Unlike Duckham and Read there was nothing in Wilson of the veteran who lags reluctant on the stage. He was up-to-date and wideawake. Before they passed away Duckham, and to a less extent, Read, gave the hearer the impression that the past was more to them than the present. All three served their generation well, and to greater purpose than was the lot of most of their compeers.—*The Scottish Farmer.*

CORRESPONDENCE.

THE LATE MR. WEST, M.R.C.V.S.

Sir,

I wonder how many of your readers know of their debt to this gentleman whose death you recorded a week or two back? It is to him we owe West's clamp. It was my privilege to introduce it to the profession, with the assistance of Mr. Huish, who must have disposed of great numbers during the past twenty years.

Mr. West early suffered in his eyes, and on one occasion when I had performed a neurectomy for him, he brought out a rough iron instrument, made by a local blacksmith for him, and offered it to me, to obtain a copy from my smith. Seeing in it a useful instrument, I suggested he should make it known to the profession, and, with characteristic generosity, he said "take it and bring it out as your own, and call it Leeney's." While not consenting to this, I had no little difficulty in obtaining his consent to give the instrument his own name, so truly modest a man he was.

HAROLD LEENEY, M.R.C.V.S.